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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,011	06/26/2006	Heiko Hessenkemper	117040.00089	6761
21324 7590 03/24/2009 HAHN LOESER & PARKS, LLP One GOJO Plaza Suite 300 AKRON, OH 44311-1076				
EXAMINER				
HOFFMANN, JOHN M				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
03/24/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/553,011

**Applicant(s)**

HESSENKEMPER ET AL.

**Examiner**

John Hoffmann

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date 7/8/08 and 7/31/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group II in the reply filed on 2/2/09 is acknowledged. The traversal is on the ground(s) that Cordie does not teach an alkaline glass surface that is enriched by aluminum concentration. This is not found persuasive because claim 2 does not require such. The preamble does not breathe life and meaning into the claim. The preamble merely sets forth what the bringing and subjecting steps are "for". The claim does not require that the glasses being as alkaline glasses. Regardless, as indicated below the claims do not define an invention over the prior art, thus there is no common special technical feature, and thus no unity of invention.

The requirement is still deemed proper and is therefore made FINAL.

Claim 1 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/2/09.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: The "bringing" step and the "subjecting" step of claims 2 and 10, and the correspondence of claim 7 are not mentioned in the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-9 and 11 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2: it is unclear what the elevated levels are elevated in respect to. It is also unclear what a "level" is – there is no examples in the specification as to what a level is. It is unclear if it is limited to the dipping of claim 4, which indicates the liquid has a level/depth. It is also unclear what is meant by "the surface of said glasses", plural glasses signify plural surfaces: it is unclear if it means that the claim is limited composite glass articles, i.e. an article comprising two glasses, but only one surface.

Claims 3 and 11: Examiner finds the use of "and/or" makes the claim indefinite as to what is required. It is noted that the term "and/or" typically means "and" or "or" in many areas. However, in patent claim construction, the term "or" almost always means "and" or "or". Thus it is unclear what applicant intends to be meant by including "and/" to the word "or". It is also unclear how the chloride can be "with and without" water.

Claim 4: As indicated above, neither the bringing step nor the subjecting step of claim 2 have antecedent basis in the specification. Thus one cannot reasonably tell

whether the applying of claim 4 is suppose to be in addition to the brining step, or if they are suppose to be the same thing.

Claim 5: there is confusing antecedent basis for the glass surface of line 2. There is no antecedent basis for "the transformation temperature", moreover, it is indefinite as to which transformation it is the temperature is. There is no antecedent basis for "The region". It is also unclear if "the glass" should be "the glasses" - or if it means that the claim 2 should really be directed to a glass, rather than glasses.

Claim 7: the term "contacting volume" is indefinite as to what is meant - the specification refers to it, but there is no explanation as to what has the volume (this applies to claim 15 also). Moreover, the units given is a concentration, not a volume. One would not be able to figure out if it the units are incorrect, or the term. There is no antecedent basis for "The lower sample temperature" or "the temperature change resistance" or "the upper sample temperature". Moreover, since there is more than one glass, there should be more than one temperature. Still further, it is unclear what these things are; they are not explained in the specification, nor are they art-recognized terms.

Claim 8: there is no antecedent basis for "the temperature" – plural compounds permit plural temperatures. It is unclear whether a potential competitor could avoid infringement by having more than one temperature.

Claim 9: there is no antecedent basis for "said gaseous phase aluminum chloride compound" - claim 6 requires plural compounds, and they need not be gaseous.

Claim 7 requires the volume and the compound "correspond". This correspondence is not mentioned at all in the specification. One of ordinary skill would not be reasonably able to figure out what is meant by this language.

Claims 13 and 15: there is no antecedent basis for "the application".

Claims 5 and 13: it is not understood what is meant by 0.1/m<sup>2</sup>, of glass surface area. The units are not those of surface area.

Claim 14: it is unclear if the "is brought" is in addition to the bringing step of claim 10, or if they are the same thing.

Claim 16: there is no antecedent basis for "the temperature" or "the aluminum chloride compounds".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 2, 4, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hammer 3847643.

Claim 10: The Hammer glass is an alkaline glass: see col. 1, line 34. Although it uses the word "alkali" it is an alkaline glass. It is noted that although "alkaline earth metals" and "alkali metals" are two different (mutually exclusive) groups of metals, the terms "alkaline" and "alkaline earths" are not always interchangeable. First, Examiner's

dictionary gives a definition for "alkaline" as "of, relating to, containing or having the properties of an alkali or alkali metal". More importantly (since claims are interpreted in light of the specification) applicant discusses "alkali" in [0002] and discusses sodium in [0003] and [0001]. Sodium is an alkali metal, not an alkali earth metal. Thus applicant's term "alkaline" is clearly not intended to exclude alkali metals. Thus Hammer's glass with "alkali materials" read on claim 10's "alkaline glass".

The bringing step is disclosed at col. 2 lines 40-50. The subjecting step is disclosed at col. 2, lines 50-53.

Claim 12: Hammer clearly teaches both modes.

Claims 2 and, 4 are clearly met

Claims 2-3, 6-8, 10, 11, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Lane 3537848.

Claim 10: Lane's Example 1 discloses that the glass is alkaline. And example 2 teaches the subjecting and bringing steps, in that order.

Claim 11 is clearly met. Claim 14: Lane's contact is one minute. Claim 15: As alluded to above, claim 15 is vague because g/m<sup>3</sup> are units of density, but the claim refers to "contacting volume". Examiner takes Official notice that all glasses have a density well above 0.01 gram/cc. And this is many-fold larger than the claimed 0.1 g/m<sup>3</sup>. In other words, the glasses volume that was contacted (like any other glass volume of any sort ever made) has a value well above 0.1 g/m<sup>3</sup>.

Claim 16: the chloride has a temperature of 225 C.

Claims 2, 3, 6 and 8 are clearly met.

Claim 7 requires that the compounds "correspond" to an amount of contacting volume. It is noted that a correspondence is largely a mental construct, a relation between sets, or an agreement of things with one another. No examples of the correspondence are given. As discussed above, all glasses have the recited density of claim 7, the compounds used "correspond" in that they permit sufficient treatment to obtain the result desired by Lane. As to the temperature, it is clearly lower than 600K – at least prior to and after the heat treatment. It is deemed inherent that the temperature does not exceed that imposed by the temperature change resistance of the glass. Clearly because if the temperature were any higher, it would not have been resisted by the temperature change resistance of the glass.

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer 3847643.

As to the 0.1g/ m2: Hammer uses 356 ml of solution (col. 3, lines 57-64). Assuming the weight is around 356 grams, such would require only 1/3560<sup>th</sup> of a square meter of glass tube on the claim. It would have been obvious that fluorescent tubes typically have as surface area much larger than 1/3560<sup>th</sup> of a square meter. For example a 1-meter tube, that is 3 cm in diameter, would have a surface area of around 0.09 square meters.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane 3537848.

Claim 9 recites that the process is used in tube glass production. However the claim does not recite any production step relating to making tubes. Thus it is deemed that such is an intended use. It is presume applicant did NOT intended that the treated glass to be limited to tube glass, otherwise such would have been claimed.

Lane's glass is used for xerography (e.g. col. 6, line3). Tube glass manufacturing plants would reasonably have a Xerox-type machine for normal business practices. So the Lane glass could be used in the production of tube glass. Alternatively, one can consider the Lane glass to be a "tube glass" because all glasses can be considered "tube glass" because all glasses can be used to make tubes. As to urging the gas through a tube: it would have been obvious to conduct the process under a hood, so as to prevent the inhalation of escaping chloride gas by the artisan. Hoods have ducts (i.e. tubes) that expel the gases. Such gas flow/urging is caused by creating a pressure differential – "similarly" to the mode of creating air flow in the Vello or Danner process. Actually they are the same: a pressure differential causes the flows.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dick, Pfizenmaier, Gliemerth, Franz, Watanabe, Fabisak, Stocker, and Nguyen are cited as being similar to some of the disclosed (but not claimed) features of the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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